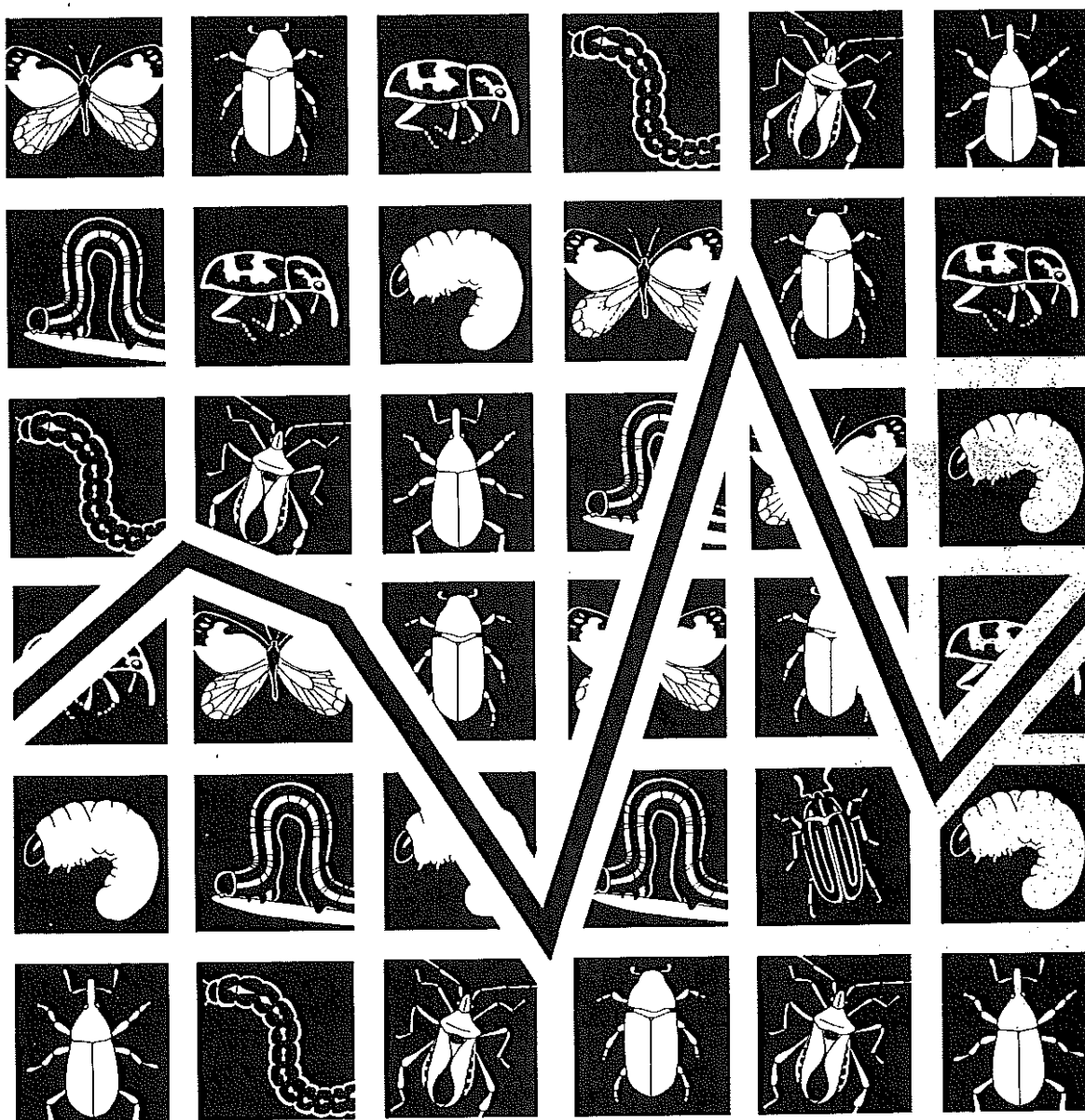


History of Population Fluctuations and Infestations of Important Forest Insects in the Vancouver Forest Region

1911 ~ 1986



Government
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Service

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du Canada

Service
canadien des
forêts

Western hemlock looper, Lambdina fiscellaria lugubrosa

Year	Remarks
1982	Increased populations with up to 50 larvae/sample at Coquitlam Lake causing severe defoliation of 100 ha in conjunction with <u>N. phantasmaria</u> .
1983	Populations collapsed, an average of 2.5 larvae in 34% of beating samples.
1984	Low populations, an average of 2 larvae in 5% of beating samples.
1985	Populations declined to the lowest level in five years with no larvae collected.
1986	Endemic levels, an average of 1 larva in 2% of beating samples.

Phantom hemlock looper, Nepytia phantasmaria

Year	Remarks
1982	Sudden increase in populations at Coquitlam Lake with more than 1000 larvae/beating. Severely defoliated 100 ha of immature and mature western hemlock along the west side of the Lake.
1983	As predicted populations collapsed at Coquitlam Lake. An average of 1.5 larvae/positive beating sample.
1984	Low populations, 4% collection positive.
1985	No larvae collected.
1986	Low populations, 2% collection positive.

Green-striped forest looper, Melanolophia imitata

Year	Remarks
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1976-82	Low populations.
1983	Low populations, 35% of beating samples contained an average of 3 larvae.
1984	Low populations, 18% of beating samples contained an average of 2 larvae.
1985-86	Low populations.

Saddleback looper, Ectropis crepuscularia

Year	Remarks
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1971-82	Very low populations.
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1983-84	Not mentioned in reports.
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1985-86	Low populations.
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Green velvet looper, Epirrita autumnata

Year	Remarks
1970-86	Larvae common in low numbers.

Western winter moth, Erannis vancouverensis

Year	Remarks
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1974-86 Not mentioned in reports.

Western blackheaded budworm, Acleris gloverana

Year	Remarks
1982	Populations remained low with an average of 2 larvae in 6% of samples.
1983	Low populations with an average of 3 larvae in 44% of samples.
1984	Low populations with an average of 2.5 larvae in 20% of samples.
1985	Lightly defoliated western and mountain hemlock over an estimated 2 000 ha in the Chehalis Lake area.
1986	Populations west of Chehalis Lake collapsed.

Silver spotted tiger moth, Halisidota argentata

Year	Remarks
1982	Scarce.
1983-84	Light defoliation on single trees from Vancouver to Squamish.
1985-86	Not recorded.

Forest tent caterpillar, Malacosoma disstria

Year	Remarks
1976-86	Not found.

Western tent caterpillar, Malacosoma californicum pluviale

Year

Remarks

1982-86 Common on various deciduous trees causing light to severe
defoliation from Vancouver to Powell River including the Gulf
Islands.

Fall webworm, Hyphantria cunea

Year	Remarks
1982-86	Light to severe defoliation of a variety of deciduous trees and shrubs in the lower mainland with the highest concentration of webs occurring in the Agassiz area.

Satin moth, Stilpnotia salicis

Year	Remarks
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1976-86 Not found.

Western spruce budworm, Choristoneura occidentalis

Year	Remarks
1982-1986	Low populations.

Western spruce budworm, Choristoneura occidentalis

Year	Remarks
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1982	For the first time in 13 years there was no defoliation recorded in the Vancouver Region and few larvae were collected.
1983	Low numbers.
1984	Low populations with an average of 1 larva in 14% of samples.
1985	Populations decreased with an average of 1.7 larvae in 8% of samples.
1986	Light to moderate defoliation of mature and immature Douglas-fir over 1 255 ha in the Blackwater and D'Arcy Creek drainages, northwest of Devine and D'Arcy.

Conifer sawflies, Neodiprion spp.

Year	Remarks
1982-86	Common in low numbers.

Striped alder sawfly, Hemichroa crocea

Year	Remarks
1980-86	Not recorded.

Pine butterfly, Neophasia menapia

Year	Remarks
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1970-86 Not recorded.

Douglas-fir tussock moth, Orgyia pseudotsugata

Year	Remarks
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1982	New outbreak caused moderate to severe defoliation of mature and immature Douglas-fir over approximately 60 ha from east of Abbotsford to west of Clearbrook.
1983	Defoliation decreased but populations remained high on mature and immature Douglas-fir near the Chilliwack golf course and in scattered residential areas in Clearbrook and Abbotsford.
1984	No larvae found populations collapsed due to NPV.
1985-86	No larvae found.

Balsam woolly aphid, Adelges piceae

Year

Remarks

1982-85 Not recorded.

1986 Infested ornamental balsam found in Powell River, this is outside
previous infestation zone.

Cooley spruce gall aphid, Adelges cooleyi

Year	Remarks
1982-84	Not recorded.
1985	Common in low numbers.
1986	Discoloration of needles on immature and mature Douglas-fir common throughout district.

Spruce aphid, Elatobium abietinum

Year

Remarks

1974-86 Not recorded.

Mountain pine beetle, Dendroctonus ponderosae

Year	Remarks
1982	3,000 killed 1P over 500 ha a decrease of 40% from 1981. Mortality recorded for the first time along the Homathko River.
1983	6,875 killed 1P over 2 065 ha in the Fraser Canyon, Bute Inlet and Pemberton areas.
1984	18,600 killed 1P over 4 300 ha, the major areas of tree mortality occurred along the Homathko River north of But Inlet and in the Gates River - Birkenhead Lake area.
1985	102,500 killed 1P over 4 195 ha in the following TSA's: 6,250 trees in Fraser TSA, 38,750 in the Soo TSA and 57,500 trees in the Quadra TSA.
1986	126,850 killed 1P over 4 160 ha in the following TSA's: 4,850 trees in Fraser TSA, 58,800 in the Soo TSA and 63,200 trees in the Quadra TSA.

Douglas-fir beetle, Dendroctonus pseudotsugae

Year	Remarks
1982	75 recently killed Douglas-fir trees were recorded in small groups in the Upper Fraser River drainage.
1983	295 recently killed Douglas-fir trees were recorded in 10 infestations in the Fraser Canyon and Pemberton areas.
1984	530 Douglas-fir trees were killed over 235 ha in 19 locations in the Fraser Canyon, Lillooet Lake and Lillooet River areas.
1985	300 Douglas-fir trees were killed over 156 ha in 18 infestations in the Upper Fraser River drainage.
1986	90 Douglas-fir trees were killed over 55 ha north of Hannah Lake.

Poplar-and-willow borer, Cryptorhynchus lapathi

Year	Remarks
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1977-86 Not mentioned in reports.

European pine shoot moth, Rhyacionia buoliana

Year

Remarks

1982-86 Not mentioned in reports.

Sequoia pitch moth, Synanthedon sequoiae

Year

Remarks

1970-86 Not mentioned in reports.

Pacific willow leaf beetle, Pyrrhalta carbo
Alder leaf beetle, Pyrrhalta punctipennis

Year	Remarks
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1976-84	Not mentioned in reports.
1985	4 300 ha of willow in the Sproat Lake area were lightly to severely skeletonized by the Pacific willow leaf beetle.
1986	Not mentioned in reports.

Alder flea beetle, Altica ambiens

Year	Remarks
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1970-86 Not mentioned in reports.

VANCOUVER ISLAND SECTION

Western hemlock looper, Lambdina fiscellaria lugubrosa

Year	Remarks
1982-1986	Low populations.

Green-striped forest looper, Melanolophia imitata

Year	Remarks
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1982-1986	Low populations.
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Western blackheaded budworm, Acleris gloverana

Year	Remarks
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1982-1986	Low populations.
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Western oak looper, Lambdina somniaria

Year	Remarks
1982	Severe (50-100%) defoliation of Garry oak and Douglas-fir over 16 ha at Mt. Maxwell Ecological Reserve on Saltspring Island for the third consecutive year.
1983	Moderate defoliation (average 10% range 5-20%) of Garry oak over 16 ha at mt. Maxwell Ecological Reserve on Saltspring Island for the fourth consecutive year.
1984	Light defoliation (average 5% range 1-10%) of Garry oak over 16 ha at Mt. Maxwell Ecological Reserve on Saltspring Island.
1985	No defoliation, low populations.
1986	Low populations.

Saddleback looper, Ectropis crepuscularia

Year

Remarks

1982-1986 Not mentioned.

Silver-spotted tiger moth, Halisidota argentata

Year	Remarks
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1982	Not mentioned.
1983	Light defoliation on single trees on southern Vancouver Island.
1984-1986	Low populations.

Satin moth, Leucoma salicis

Year

Remarks

1982-1986 Not mentioned.

Tent caterpillars, Malacosoma californicum pluviale and M. disstria

Year	Remarks
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1982-1983	Not mentioned.
1984	Severe defoliation on east coastal Vancouver Island.
1985-1986	Light to severe defoliation from Victoria to Campbell River and the Gulf Islands.

Fall webworm, Hyphantria cunea

Year	Remarks
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1982-1983	Light to severe defoliation on scattered roadside shrubs and trees from Victoria to Campbell River.
1984-1986	Low populations.

Striped alder sawfly, Hemichroa crocea

Year

Remarks

1982-1986 Not mentioned.

Conifer sawflies, Neodiprion spp.

Year	Remarks
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1982	High populations at Haighte Lakes, Rooney Lake and Corrigan Creek, no defoliation was recorded.
1983	Moderate populations at Haighte Lake and Forbidden Plateau, no defoliation was recorded.
1984	Light defoliation at Norm Lake on northern Vancouver Island.
1985	Low populations with no defoliation.
1986	Not mentioned.

Pine butterfly, Neophasia menapia

Year	Remarks
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1982	Large flights near Port Alberni, MacMillan Park and Comox, no defoliation.
1983-1986	Not mentioned.

Antique tussock moth, Orgyia antiqua badia

Year

Remarks

1982 Low populations.

1983-1986 Not mentioned.

Spruce aphid, Elatobium abietinum

Year	Remarks
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1982-1983	Not mentioned.
1984	Increased population, light to moderate defoliation at Otter Point.
1985-1986	Low populations.

Balsam woolly aphid, Aldeges piceae

Year	Remarks
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1982-1983	Not mentioned.
1984	Not found in surveys on Vancouver Island.
1985	Found at Rath Trevor Park near Parksville.
1986	Found at West Thurlow Island near Campbell River.

European pine shoot moth, Rhyacionia buoliana

Year

Remarks

1982-1986 Minor damage to ornamental pines on southern Vancouver Island.

Pacific willow leaf beetle, Pyrrhalta carbo

Year	Remarks
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1982-1984	Not mentioned.
1985	Light to severe defoliation to willow over 4 300 ha near Sproat Lake.
1986	Not mentioned.

Hemlock needle miner, Epinotia tsugana

Year

Remarks

1982-1986 Not mentioned.

Douglas-fir beetle, Dendroctonus pseudotsugae

Year	Remarks
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1982	Four trees were attacked on Saltspring Island.
1983	25 trees were killed on southern Vancouver Island.
1984	Low populations, no mortality.
1985	Low populations at Strathcona Park.
1986	Not mentioned.

Mountain pine beetle, Dendroctonus ponderosae

Year

Remarks

1982-1983 Not mentioned.

1984 Mortality to 35 lodgepole pine near the Oyster River.

1985-1986 Not mentioned.